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Sound Start Literacy

Cross-Cohort DIBELS Outcomes in a First
Grade School-Wide Implementation,
2023-2024 to 2025-2026



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Sound Start Literacy Two-Year Implementation Study

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Abstract

As part of the shift towards explicit phonics instruction, some schools are testing the linguistic-phonics or “speech-to-print” approach, which focuses on encoding rather than decoding-focused phonics programs. This study examines student literacy outcomes in one school that implemented Sound Start Literacy, a linguistic-phonics program beginning in the 2024–2025 school year. This analysis compares end-of-year DIBELS 8th Edition outcomes for the 2025–2026 cohort (Year 2 of implementation) against a 2023–2024 pre-implementation cohort in the same classrooms. First graders who received Sound Start read 13.8 more words correct per minute than the pre-implementation cohort after adjusting for fall performance (Hedges' $g = 0.32$, $p = .019$), a gain equivalent to roughly 1.1 additional months of reading growth, with a larger gain on phonemic segmentation ($g = 0.80$). The present study is a cross-cohort comparison with baseline adjustment in a single school and therefore does not support causal claims.

Keywords: linguistic phonics, first-grade reading fluency, DIBELS, cross-cohort comparison, K–1 literacy

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Introduction

Early literacy proficiency is strongly predictive of long-term academic outcomes. Students who are not proficient readers by third grade face substantially higher risk of grade retention, special education referral, and reduced high school education attainment (Hernandez, 2011). National reading proficiency has been stable for two decades (National Center for Education Statistics, 2024), and research since the Report of the National Reading Panel (2000) continues to point in the same direction, indicating that systematic, explicit instruction in phonological awareness and phonics is a necessary precursor to skilled reading, particularly for students at risk of reading difficulty (Ehri et al., 2001; Foorman et al., 2016). In line with the Simple View of Reading framework, word recognition and language comprehension are the two main components of reading (Gough & Tunmer, 1986) that should be targeted among early grade students (i.e., K-3).

Sound Start Literacy is a linguistic-phonics program that targets these two components of reading by connecting speech to print across each lesson plan. This program is based on previous research suggesting skilled word reading depends on bonding a sound to its spelling in memory, a process called orthographic mapping that requires the sound to be established first (Ehri, 2014). A meta-analysis found that phonemic awareness instruction produces larger reading gains when taught with letters present than as a purely oral skill (Rice et al., 2022), and the quality of a child's phonological representations has been shown to set a constraint on how efficiently new words can be learned (Kilpatrick, 2015). The program also folds morphology — prefixes, suffixes, and roots — into the same sequence used for phonics, consistent with evidence that morphological knowledge predicts word reading and spelling and is best built through explicit, cumulative instruction (Apel, 2014; Goodwin & Ahn, 2010; Levesque et al., 2019).

Two additional research-backed processes inform the program's mechanics. First, automaticity develops through frequent, active retrieval rather than passive review, offering an explanation to why pairing spelling instruction with decoding strengthens word-level reading more than decoding alone (Chi & Wylie, 2014; Hudson et al., 2012; Ouellette et al., 2017; Weiser & Mathes, 2011). Second, formative assessment improves achievement when it is closely connected to instruction, allowing teachers to use results to adapt small-group instruction rather than solely recording progress or determining advancement (Black & Wiliam, 2009; Klute et al., 2017; Xuan et al., 2022). This responsive instruction can be reinforced through distributed, cumulative review, which supports retention better than concentrated practice (Benjamin & Tullis, 2010).

A separate, longstanding problem in early reading instruction is one of implementation rather than evidence. Teacher preparation in language structure varies widely, and gaps in that preparation predate any particular curriculum choice (Moats, 1999, 2009; Piasta & Hudson, 2022). Teachers left to assemble instruction from multiple sources produce inconsistent sequence, pace, and coverage (Brown et al., 2021). This reflects a broader case for fully guided, explicit instruction over approaches that expect teachers or students to infer patterns on their own (Clark et al., 2012). Sound Start Literacy is built as a fully specified, ready-to-teach program partly to close that gap. It pairs its instructional design with a professional-learning model in which teachers watch each routine modeled on video and then apply it



immediately, consistent with research finding that professional development is more likely to transfer to practice through modeling and immediate application rather than through hours of training alone (Kennedy, 2016; Stavermann, 2025; Yoon et al., 2007;).

The present study examines one school's transition to Sound Start Literacy across two full implementation years, using a pre-implementation baseline from the same classrooms for comparison. Two questions were examined: did first-grade DIBELS outcomes improve following the transition, and how consistent was any change across different ways of handling the comparison?

Program Description

Sound Start Literacy delivers daily, 30-minute lessons from a fully built slide deck, teacher's manual, and set of printable student pages, designed to be taught directly with little additional preparation. Every lesson ends with a built-in Progress Check rather than a periodic benchmark, allowing teachers to get an immediate read on student understanding after each lesson. Letters are introduced in the order their sounds appear most frequently in words, rather than in an order built around letter formation or handwriting practice, which is intended to let students begin blending and reading sooner than a formation-based sequence would allow. Within a lesson, a new sound is introduced through an Auditory Connection — heard and manipulated orally — before a Visual Connection shows its spelling, followed by word sorting and phoneme-manipulation practice (see Figure 1). The same fixed sequence carries morphology alongside phonics, introducing inflectional suffixes in Kindergarten and expanding to prefixes, suffixes, and Greek and Latin roots by Grade 3. Professional learning follows a “watch, then try” model in which teachers see each routine modeled on video and apply it in their own classroom, with the same routines held constant across all four grade levels.

Figure 1. *Sound Start Literacy sample word building activity*

Name: _____

What's new, Bookworm?

We can read and spell words with **f & g**.

Let's turn the sounds we say into words we can see.
Spell words with the new spellings in the sound boxes. Write them on the lines.

	<table border="1"><tr><td>f</td><td>i</td><td>g</td></tr></table> _____	f	i	g		<table border="1"><tr><td>f</td><td>a</td><td>t</td></tr></table> _____	f	a	t	
f	i	g								
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School Context

The school examined here adopted Sound Start Literacy as a replacement for two prior foundational-skills curricula: Sonday Essentials in first grade and UFLI Foundations in kindergarten. Both were in use during the 2023-24 pre-implementation year. It is worth noting that UFLI Foundations, the kindergarten curriculum Sound Start replaced, is itself a widely used and well-regarded systematic phonics program. The transition was driven less by a gap in UFLI's research base and more by classroom-level feedback about ease of use and pacing for struggling readers.

The 2023–24 school year served as the pre-implementation baseline, when first grade was not using Sound Start yet. One kindergarten classroom received partial Sound Start instruction from January through June of that year. Students from that classroom entered first grade in Year 1, so a portion of the Year 1 first-grade cohort had some prior exposure to the program. Full, school-wide adoption began in 2024–25 (Year 1) and continued through 2025–26 (Year 2), the primary year of interest in this analysis. Due to the partial implementation of Sound Start Literacy in kindergarten in the pre-implementation year, this study focuses only on first-grade outcomes. See Table 1 for details by year.

Implementation also differed between the two years when Sound Start was in use. Neither cohort completed the full sequence of Sound Start in either year due to scheduling constraints. First-grade classrooms completed approximately 41% of the Sound Start sequence in Year 1 (ending at Lesson 12) compared with approximately 65% in Year 2 (ending at Lesson 19). Cumulative exposure also differed, as first-graders in Year 1 received Sound Start only in first grade while those in Year 2 received it in both kindergarten and first-grade. Because the Year 1 cohort received a smaller dose of the program in both respects, Year 2 is reported as the primary comparison.

Table 1. Cohort sizes for each year.

Cohort	Gr. 1 classrooms	Gr. 1 students	Total	Percent of curriculum completion
Pre-implementation (2023–24)	3	39	68	0%
Year 1 (2024–25)	3	44	82	41%
Year 2 (2025–26)	3	42	90	65%

Classroom counts reflect sections included in this analysis, not full-school enrollment.

Method

Participants and Study Context

This analysis compares the 2025–26 (Year 2) cohort against the 2023–24 pre-implementation cohort in the same classrooms, with the 2024–25 (Year 1) cohort reported as an intermediate point. First-graders in Year 1 received Sound Start only in first grade, as they were in kindergarten before adoption.



First-graders in Year 2 were kindergartners during Year 1 and received Sound Start in both kindergarten and first grade. Therefore, Year 2 performance shows an effect of a two year Sound Start implementation. Because Sound Start was adopted classroom-wide, the treatment condition is identified by school year rather than by individual student participation. Group definitions, primary outcomes, and covariates were decided on before end-of-year results were examined.

Measures

The primary outcome for first grade is Oral Reading Fluency words correct (ORF-WC) at the end of the year, adjusted for beginning-of-year oral reading fluency. The DIBELS composite score is not available for the pre-implementation year and so could not serve as either an outcome or a covariate.

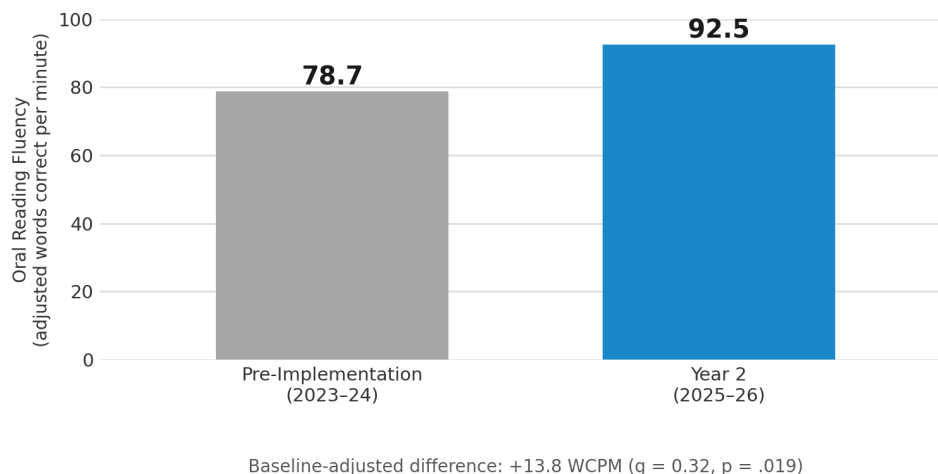
Baseline equivalence with the pre-implementation cohort was acceptable for both implementation cohorts: first-grade oral reading fluency at the start of the year was similar across cohorts in Year 1 (28.7 versus 33.9; standardized difference +0.12, $p = .588$) and Year 2 (28.7 versus 34.3; standardized difference +0.15, $p = .508$).

Results

Primary Analysis

By the end of Year 2, first graders who had received Sound Start instruction read aloud more fluently than the pre-implementation cohort from the same classrooms. After adjusting for where students started the year, Year 2 students read 13.8 more words correct per minute (95% CI +2.3 to +25.3, $p = .019$, Hedges' $g = 0.32$), a gain equivalent to roughly 1.1 additional months of reading growth, as shown in Figure 2. This result held even after accounting for classroom and teacher differences. The Year 1 cohort did not differ from the pre-implementation cohort (-0.6 WCPM, 95% CI -12.0 to +10.8, $p = .918$, $g = -0.01$).

Figure 2. First-grade oral reading fluency, pre-implementation vs. Year 2 (grey = comparison, blue = Sound Start).

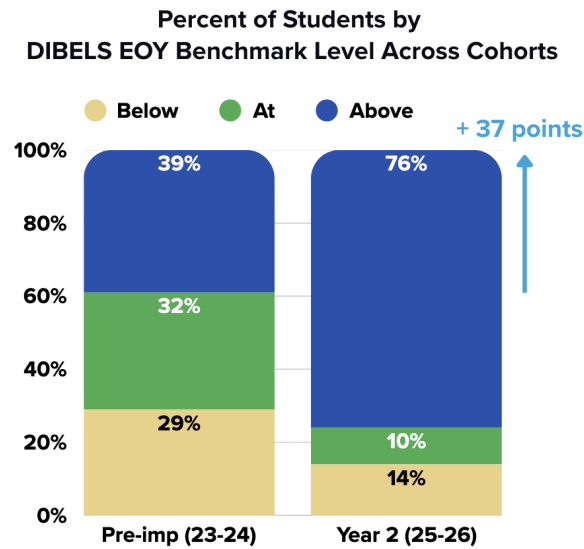


Benchmark Analysis



The distribution across first-grade benchmark levels differed significantly between the pre-implementation and year 2 cohorts $\chi^2(2) = 11.45, p = .003$, Cramér's $V = 0.38$. Post-hoc comparisons showed significant differences in the above-benchmark ($q = .003$) and at-benchmark ($q = .021$) categories, but not the below-benchmark category ($q = .109$). The Year 1 cohort did not differ from the pre-implementation cohort, $\chi^2(2) = 1.34, p = .511$.

Figure 3. *First-grade oral reading fluency end-of-year benchmark comparisons, pre-implementation vs. Year 2*

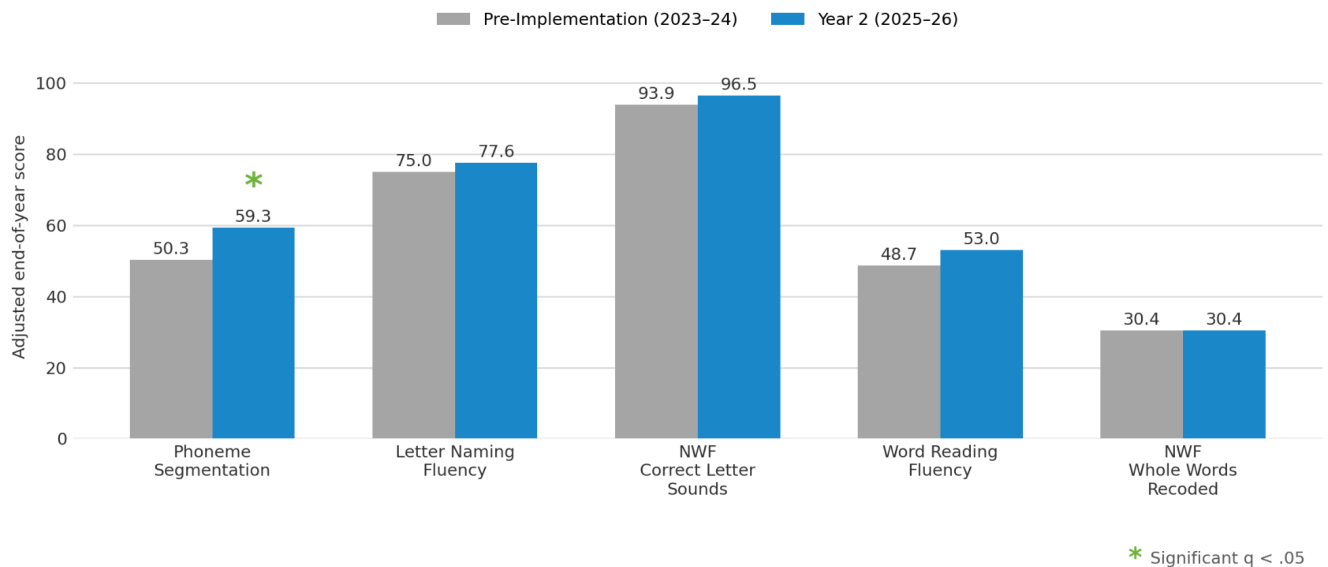


Supplementary Analysis

Phonemic Segmentation Fluency showed the largest adjusted effect ($g = 0.80, q = .010$, about 2.6 months of instruction), followed by oral reading fluency. Letter-sound accuracy and word reading fluency, by contrast, were stable once baseline performance was accounted for. No subtest differed significantly between the Year 1 and pre-implementation cohorts (all $q \geq .16$)



Figure 4. First-grade DIBELS subtest comparison, end of year (grey = comparison, blue = Sound Start).



Viewed across just the two implementation years, the DIBELS composite for first grade rose from 482.6 in Year 1 to 498.6 in Year 2, moving the grade from roughly the 62nd to the 72nd national percentile.¹

Teacher Perspective

Although this report focuses on first grade student outcomes, implementation was impactful for kindergarten as well and the support of kindergarten foundational literacy skills in Year 1 could have helped improve first grade outcomes in Year 2. One teacher of the transitional kindergarten classroom — the section that began piloting Sound Start in January of the pre-implementation year — offered the following account of what changed in her classroom:

“Sound Start Literacy has changed the way I run my classroom on a daily basis. My students were struggling with the basic concepts of phonics, and the curriculum I was using was not developed in a way that met the needs of students who were really struggling. I was given the opportunity to use Sound Start Literacy at the start of the new year [January], and within two weeks there was growth and progress with phonemic awareness, blending, segmenting, decoding, and recognizing heart words [high frequency words]. The teaching model is extremely interactive and easy to follow — with the training, I was able to pick up the program and start teaching without it being overwhelming, and there was no need to look elsewhere for other resources for small groups. Not only did I see a significant change in their phonics skills, I saw a change in their demeanor as the year came to a close: they are ready and confident for 1st grade.”

The teacher describes rapid, visible movement in exactly the skills the foundational literacy skills: phonemic awareness, blending, segmenting, and decoding. Her account also emphasizes that the program was, in her words, “easy to follow” and did not require supplementing with outside materials for

¹ Composite scores or national percentiles were not available for the pre-implementation year



small-group instruction, which speaks to teacher-facing usability rather than student outcomes directly, but usability may impact how consistently and effectively the program is implemented.

A second kindergarten teacher, whose classroom was part of the pre-implementation comparison group before adopting Sound Start the following year, pointed to a specific design choice as the source of the difference she saw:

"I appreciate that Sound Start sequences letter introduction by most commonly used sounds. This allows us to begin blending and reading so much faster than introducing letters based on formation and handwriting. I have seen such a jump in emergent reading skills using the Sound Start program."

This account points to a specific, checkable feature of the curriculum, the frequency-based letter sequencing in place of a handwriting-based one. The teacher suggests that this difference is what facilitated blending to begin earlier for her students. Taken together with the scope-and-sequence explanation above, both accounts argue for treating the kindergarten result as an open question rather than a settled one.

Differences in Tier 2 Needs Across Cohorts

The school reported the number of students receiving literacy support from a reading specialist across the three years. In first grade, 13 of 39 students were receiving support in the fall of 2023-24, and 12 students in the spring. In Year 1, 14 of 44 were receiving support in the fall and 6 in the spring. In Year 2, 5 of 43 students were receiving support in the fall and 2 in the spring. In addition, when a reading specialist retired the school decided not to replace her because they had fewer students needing support after the implementation of Sound Start Literacy.

Discussion

Two years into implementation, Sound Start Literacy is associated with a significant gain in first-grade oral reading fluency and phonemic segmentation, while letter-sound accuracy and word reading fluency held steady. That pattern is the primary finding of this study.

Limitations

Several limitations should be considered when interpreting the findings. First, because treatment status is closely tied to the school year, this design cannot separate the effects of Sound Start from other factors that may have changed between 2023–24 and 2025–26 including staffing, the combination of students in a cohort, or broader trends in recovery from pandemic-era learning loss. With three classrooms, classroom-level results should be interpreted as exploratory, pointing to promising patterns that should be further explored. In addition, the findings come from a single school, which limits their generalizability. The first-grade result is therefore best described as associative: students receiving Sound Start in Year 2 read more fluently at year's end than the pre-implementation cohort from the same classrooms, after accounting for where they started. A stronger, causal claim would require a concurrent matched comparison group, which this dataset does not include.



Conclusion and Next Steps

The present study found that in the first two years with Sound Start Literacy, first-grade students read aloud more fluently and segmented phonemes far more accurately than the pre-implementation cohort from the same classrooms. Educators also voiced positive feedback about ease of use and attested there was less of a need for Tier 2 support after Sound Start implementation. Taken together, the findings are promising, and they point to a natural next step of a concurrent matched-comparison study design that could strengthen the causal evidence for early literacy development. The ease of use of the program tools for educators, with only online training materials, would be interesting to replicate in a larger building with more teachers, given the scalability of the implementation.

Considerations for Schools Evaluating Sound Start

- The first-grade gains, concentrated in oral reading fluency and phonemic segmentation, line up with the two skills the program's early lessons emphasize most — a pattern worth watching for in other implementations rather than treating as a one-school coincidence.
- A concurrent matched comparison group would allow a stronger evidence claim than a cross-cohort design supports.

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